

**Standby Power Rating**  
 40 kW, 50 kVA, 60 Hz

**Prime Power Rating\***  
 36 kW, 45 kVA, 60 Hz



Image used for illustration purposes only



\*EPA Certified Prime ratings are not available in the US or its Territories

## Codes and Standards

Generac products are designed to the following standards:

-   UL2200, UL508, UL489
-  CSA 22.2
-   BS5514 and DIN 6271
-  SAE J1349
-  NFPA 37, 70, 99, 110
-  NEC700, 701, 702, 708
-  ISO 3046, 7637, 8528, 9001
-  NEMA ICS10, MG1, 250, ICS6, AB1
-  ANSI C62.41
-   IBC 2009, CBC 2010, IBC 2012, ASCE 7-05, ASCE 7-10, ICC-ES AC-156 (2012)

## Powering Ahead

Generac ensures superior quality by designing and manufacturing most of its generator components, such as alternators, enclosures, control systems and communications software. Generac also makes its own spark-ignited engines, and you'll find them on every Generac gaseous-fueled generator. We engineer and manufacture them from the block up — all at our facilities throughout Wisconsin. Applying natural gas and LP-fueled engines to generators requires advanced engineering expertise to ensure reliability, durability and necessary performance. By designing specifically for these dry, hotter-burning fuels, the engines last longer and require less maintenance. Building our own engines also means we control every step of the supply chain and delivery process, so you benefit from single-source responsibility.

Plus, Generac Industrial Power's distribution network provides all parts and service so you don't have to deal with third-party suppliers. It all leads to a positive owner experience and higher confidence level. Generac spark-ignited engines give you more options in commercial and industrial generator applications as well as extended run time from utility-supplied natural gas.

## STANDARD FEATURES

### ENGINE SYSTEM

- Oil Drain Extension
- Air Cleaner
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil and Coolant
- Radiator Duct Adapter (Open Set Only)
- Critical Exhaust Silencer

### Fuel System

- Fuel Line - NPT Connection
- Primary and Secondary Fuel Shutoff

### Cooling System

- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Factory-Installed Radiator
- 50/50 Ethylene Glycol Antifreeze
- Radiator Drain Extension

### Electrical System

- Battery Charging Alternator
- Battery Cables
- Battery Tray
- Rubber-Booted Engine Electrical Connections
- Solenoid Activated Starter Motor

### ALTERNATOR SYSTEM

- GENprotect™
- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Permanent Magnet Excitation
- Sealed Bearing
- Amortisseur Winding
- Full Load Capacity Alternator

### GENERATOR SET

- Internal Genset Vibration Isolation
- Separation of Circuits - High/Low Voltage
- Separation of Circuits - Multiple Breakers
- Wrapped Exhaust Piping
- Standard Factory Testing
- 2 Year Limited Warranty (Standby Rated Units)
- 1 Year Limited Warranty (Prime Rated Units)
- Silencer Mounted in the Discharge Hood (Enclosed Only)

### ENCLOSURE (If Selected)

- Rust-Proof Fasteners with Nylon Washers to Protect Finish
- High Performance Sound-Absorbing Material (Sound Attenuation Enclosures)
- Gasketed Doors
- Stamped Air-Intake Louvers
- Upward Facing Discharge Hoods (Radiator and Exhaust)
- Stainless Steel Lift Off Door Hinges
- Stainless Steel Lockable Handles
- RhinoCoat™ - Textured Polyester Powder Coat Paint

## CONTROL SYSTEM



### Digital H Control Panel- Dual 4x20 Display

#### Program Functions

- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications Programmable Logic Controller
- RS-232/485 Communications
- 3-Phase Sensing Digital Voltage Regulator
- 2-Wire Start Capability
- Date/Time Fault History (Event Log)
- Isochronous Governor Control
- Waterproof/Sealed Connectors
- Audible Alarms and Shutdowns
- Not in Auto (Flashing Light)

- Auto/Off/Manual Switch
- E-Stop (Red Mushroom-Type)
- NFPA110 Level I and II (Programmable)
- Customizable Alarms, Warnings, and Events
- Modbus® Protocol
- Predictive Maintenance Algorithm
- Sealed Boards
- Password Parameter Adjustment Protection
- Single Point Ground
- 16 Channel Remote Trending
- 0.2 msec High Speed Remote Trending
- Alarm Information Automatically Annunciated on the Display

#### Full System Status Display

- Power Output (kW)
- Power Factor
- kW Hours, Total, and Last Run
- Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents
- Oil Pressure
- Coolant Temperature
- Coolant Level

- Engine Speed
- Battery Voltage
- Frequency

#### Alarms and Warnings

- Oil Pressure
- Coolant Temperature
- Coolant Level
- Low Fuel Pressure Alarm
- Engine Overspeed
- Battery Voltage
- Alarms and Warnings Time and Date Stamped
- Snap Shots of Key Operation Parameters During Alarms and Warnings
- Alarms and Warnings Spelled Out (No Alarm Codes)

# SG040 | 5.4L | 40 kW

## INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency

### CONFIGURABLE OPTIONS

#### ENGINE SYSTEM

- Engine Coolant Heater
- Oil Heater
- Air Filter Restriction Indicator
- Stone Guard (Open Set Only)
- Fan and Belt Guards

#### ELECTRICAL SYSTEM

- 10A UL Battery Charger
- Battery Warmer

#### ALTERNATOR SYSTEM

- Alternator Upsizing
- Anti-Condensation Heater
- Tropical Coating

#### CIRCUIT BREAKER OPTIONS

- Main Line Circuit Breaker
- 2nd Main Line Circuit Breaker
- Shunt Trip and Auxiliary Contact
- Electronic Trip Breakers

#### GENERATOR SET

- Demand Response Rating
- GenLink® Communications Software (English Only)
- Extended Factory Testing (3-Phase Only)
- 8 Position Load Center
- Vapor Recovery Heater

#### ENCLOSURE

- Standard Enclosure
- Level 1 Sound Attenuation
- Level 2 Sound Attenuation
- Level 2 Sound Attenuation with Motorized Dampers
- Steel Enclosure
- Aluminum Enclosure
- Up to 200 MPH Wind Load Rating (Contact Factory for Availability)
- AC/DC Enclosure Lighting Kit
- Enclosure Ambient Heaters
- Door Alarm Switch

#### CONTROL SYSTEM

- NFPA 110 Compliant 21-Light Remote Annunciator
- Remote Relay Assembly (8 or 16)
- Oil Temperature Sender with Alarm
- Remote E-Stop (Break Glass-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Flush Mount)
- Remote Communication - Modem
- 10A Run Relay
- Ground Fault Indication and Protection Functions
- 120V GFCI and 240V Outlet
- 100 dB Alarm Horn

#### WARRANTY (Standby Gensets Only)

- 2 Year Extended Limited Warranty
- 5 Year Limited Warranty
- 5 Year Extended Limited Warranty
- 7 Year Extended Limited Warranty
- 10 Year Extended Limited Warranty

### ENGINEERED OPTIONS

#### ENGINE SYSTEM

- Coolant Heater Ball Valves
- Fluid Containment Pan

#### ALTERNATOR SYSTEM

- 3rd Breaker System

#### CONTROL SYSTEM

- Spare Inputs (x4) / Outputs (x4)
- Battery Disconnect Switch

#### GENERATOR SET

- Special Testing
- Battery Box

# SG040 | 5.4L | 40 kW

## INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency

### APPLICATION AND ENGINEERING DATA

#### ENGINE SPECIFICATIONS

##### General

|                                    |                     |
|------------------------------------|---------------------|
| Make                               | Generac             |
| Cylinder #                         | 8                   |
| Type                               | V                   |
| Displacement - in <sup>3</sup> (L) | 329.53 (5.4)        |
| Bore - in (mm)                     | 3.55 (90.17)        |
| Stroke - in (mm)                   | 4.17 (105.992)      |
| Compression Ratio                  | 9.0:1               |
| Intake Air Method                  | Naturally Aspirated |
| Number of Main Bearings            | 4                   |
| Connecting Rods                    | Forged Steel        |
| Cylinder Head                      | Aluminum            |
| Cylinder Liners                    | No                  |
| Ignition                           | Single Fire         |
| Piston Type                        | Aluminum Alloy      |
| Crankshaft Type                    | Nodular Iron        |
| Lifter Type                        | Hydraulic           |
| Intake Valve Material              | Steel Alloy         |
| Exhaust Valve Material             | Hardened Steel      |
| Hardened Valve Seats               | Yes                 |

##### Engine Governing

|                                     |            |
|-------------------------------------|------------|
| Governor                            | Electronic |
| Frequency Regulation (Steady State) | ±0.25%     |

##### Lubrication System

|                             |                             |
|-----------------------------|-----------------------------|
| Oil Pump Type               | Gear                        |
| Oil Filter Type             | Full-Flow Spin-On Cartridge |
| Crankcase Capacity - qt (L) | 6 (5.7)                     |

##### Cooling System

|                        |                             |
|------------------------|-----------------------------|
| Cooling System Type    | Pressurized Closed Recovery |
| Fan Type               | Pusher                      |
| Fan Speed - rpm        | 2,143                       |
| Fan Diameter - in (mm) | 20 (508)                    |

##### Fuel System

|   |                            |
|---|----------------------------|
| Fuel Type   | Natural Gas, Propane Vapor |
| Carburetor  | Down Draft                 |
| Secondary Fuel Regulator                            | Standard                   |
| Fuel Shut Off Solenoid                              | Standard                   |
| Operating Fuel Pressure - in H <sub>2</sub> O (kPa) | 8 - 14 (2.0 - 3.5)         |

##### Engine Electrical System

|                            |                              |
|----------------------------|------------------------------|
| System Voltage             | 12 VDC                       |
| Battery Charger Alternator | Standard                     |
| Battery Size               | See Battery Index 0161970SBY |
| Battery Voltage            | 12 VDC                       |
| Ground Polarity            | Negative                     |

#### ALTERNATOR SPECIFICATIONS

|                                     |                |
|-------------------------------------|----------------|
| Standard Model                      | Generac 390 mm |
| Poles                               | 4              |
| Field Type                          | Revolving      |
| Insulation Class - Rotor            | H              |
| Insulation Class - Stator           | H              |
| Total Harmonic Distortion           | <5% (3-Phase)  |
| Telephone Interference Factor (TIF) | <50            |

|                                    |                          |
|------------------------------------|--------------------------|
| Standard Excitation                | Synchronous Brushless    |
| Bearings                           | Sealed Ball              |
| Coupling                           | Direct via Flexible Disc |
| Prototype Short Circuit Test       | Yes                      |
| Voltage Regulator Type             | Full Digital             |
| Number of Sensed Phases            | All                      |
| Regulation Accuracy (Steady State) | ±0.25%                   |

# SG040 | 5.4L | 40 kW

## INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency

### OPERATING DATA

#### POWER RATINGS - NATURAL GAS/PROPANE VAPOR

|                                 |       | Standby   |
|---------------------------------|-------|-----------|
| Single-Phase 120/240 VAC @1.0pf | 40 kW | Amps: 167 |
| Three-Phase 120/208 VAC @0.8pf  | 40 kW | Amps: 139 |
| Three-Phase 120/240 VAC @0.8pf  | 40 kW | Amps: 120 |
| Three-Phase 277/480 VAC @0.8pf  | 40 kW | Amps: 60  |
| Three-Phase 346/600 VAC @0.8pf  | 40 kW | Amps: 48  |

#### STARTING CAPABILITIES (sKVA)

##### sKVA vs. Voltage Dip

| 277/480 VAC |    |     |     |     |     |     |     | 208/240 VAC |    |     |     |     |     |     |     |
|-------------|----|-----|-----|-----|-----|-----|-----|-------------|----|-----|-----|-----|-----|-----|-----|
| Alternator  | kW | 10% | 15% | 20% | 25% | 30% | 35% | Alternator  | kW | 10% | 15% | 20% | 25% | 30% | 35% |
| Standard    | 40 | 27  | 41  | 54  | 68  | 81  | 95  | Standard    | 40 | 20  | 31  | 41  | 51  | 61  | 71  |
| Upsize 1    | 50 | 34  | 52  | 69  | 86  | 103 | 120 | Upsize 1    | 50 | 26  | 39  | 52  | 65  | 77  | 90  |
| Upsize 2    | 60 | 42  | 63  | 83  | 104 | 125 | 146 | Upsize 2    | 60 | 32  | 47  | 62  | 78  | 94  | 110 |

#### FUEL CONSUMPTION RATES\*

| Natural Gas – ft <sup>3</sup> /hr (m <sup>3</sup> /hr) |            | Propane Vapor – ft <sup>3</sup> /hr (m <sup>3</sup> /hr) |             |
|--|------------|--|-------------|
| Percent Load   | Standby    | Percent Load   | Standby     |
| 25%  | 263 (7.5)  | 25%  | 87.8 (2.5)  |
| 50%  | 451 (12.8) | 50%  | 150.5 (4.3) |
| 75%  | 609 (17.2) | 75%  | 203.2 (5.8) |
| 100%   | 752 (21.3) | 100%   | 250.9 (7.1) |

\* Fuel supply installation must accommodate fuel consumption rates at 100% load.

#### COOLING

|   |  | Standby        |
|---|--|----------------|
| Air Flow (Inlet Air Combustion and Radiator)          | ft <sup>3</sup> /min (m <sup>3</sup> /min) | 2,460 (69.7)   |
| Coolant Flow  | gpm (lpm)                                  | 38 (144)       |
| Coolant System Capacity                               | gal (L)                                    | 3 (11.36)      |
| Heat Rejection to Coolant                             | BTU/hr (kW)                                | 165,000 (48.4) |
| Maximum Operating Ambient Temperature                 | °F (°C)                                    | 122 (50)       |
| Maximum Operating Ambient Temperature (Before Derate) | See Bulletin No. 0199270SSD                |                |
| Maximum Radiator Backpressure                         | in H <sub>2</sub> O (kPa)                  | 0.5 (0.12)     |

#### COMBUSTION AIR REQUIREMENTS

|   | Standby  |
|---|----------|
| Flow at Rated Power cfm (m <sup>3</sup> /min) | 95 (2.7) |

#### ENGINE

|                          |                | Standby       |
|--------------------------|----------------|---------------|
| Rated Engine Speed       | rpm            | 1,800         |
| Horsepower at Rated kW** | hp             | 62            |
| Piston Speed             | ft/min (m/min) | 1,251 (381.3) |
| BMEP                     | psi (kPa)      | 83 (572)      |

#### EXHAUST

|   |                           | Standby   |
|---|---------------------------|-----------|
| Exhaust Flow (Rated Output)                 | cfm (m <sup>3</sup> /min) | 291 (8.2) |
| Maximum Exhaust Backpressure                | inHg (kPa)                | 1.5 (5.1) |
| Exhaust Temp (Rated Output - Post Silencer) | °F (°C)                   | 960 (515) |

\*\* Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.

Please contact a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528, and DIN6271 standards.

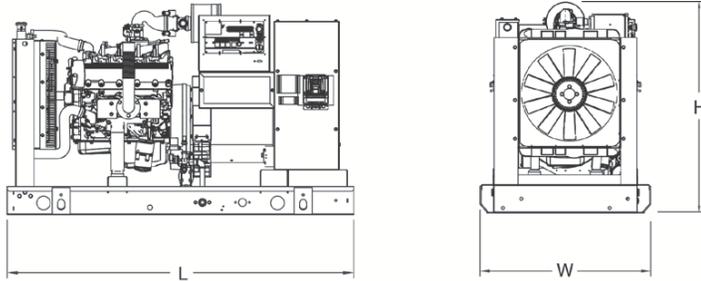
Standby - See Bulletin 0187500SSB

Prime - See Bulletin 0187510SSB

**SG040 | 5.4L | 40 kW**  
**INDUSTRIAL SPARK-IGNITED GENERATOR SET**

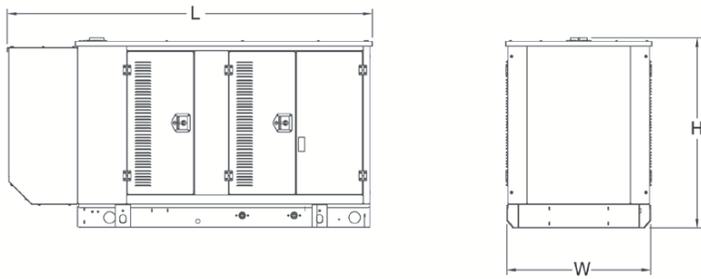
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**DIMENSIONS AND WEIGHTS\***



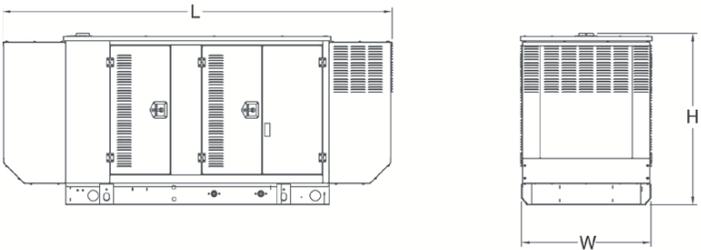
**OPEN SET (Includes Exhaust Flex)**

|                     |  |
|---------------------|--|
| L x W x H - in (mm) | 76.0 (1,930.0) x 37.4 (950.0) x 46.3 (1,176) |
| Weight - lbs (kg)   | 2,256 (1,023)                                |



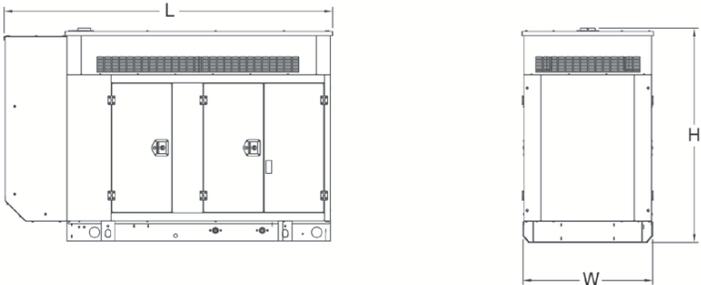
**STANDARD ENCLOSURE**

|                     |   |
|---------------------|---|
| L x W x H - in (mm) | 94.8 (2,408.9) x 38.0 (965.1) x 49.5 (1,258.1)  |
| Weight - lbs (kg)   | Steel: 2,697 (1,223)<br>Aluminum: 2,439 (1,106) |



**LEVEL 1 ACOUSTIC ENCLOSURE**

|                     |   |
|---------------------|---|
| L x W x H - in (mm) | 112.5 (2,857.1) x 38.0 (965.1) x 49.5 (1,258.1) |
| Weight - lbs (kg)   | Steel: 2,776 (1,223)<br>Aluminum: 2,508 (1,138) |



**LEVEL 2 ACOUSTIC ENCLOSURE**

|                     |   |
|---------------------|---|
| L x W x H - in (mm) | 94.8 (2,470.0) x 38.0 (965.1) x 69.1 (1,755.0)  |
| Weight - lbs (kg)   | Steel: 2,928 (1,328)<br>Aluminum: 2,574 (1,168) |

\* All measurements are approximate and for estimation purposes only.

|  |
|--|
| <b>YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER</b> |
|  |

Specification characteristics may change without notice. Please contact a Generac Power Systems Industrial Dealer for detailed installation drawings.